5

10

ABSTRACT

An electronic ballast includes open circuit voltage regulation comprises an filament current sensing circuit 224 operably connected to an output of the electronic ballast and generating a sensed output voltage signal, and a regulating pulse width modulator U3 receiving the sensed output voltage signal and operably connected to control voltage at the output of the electronic ballast, the regulating pulse width modulator U3 having an output voltage threshold limit. The regulating pulse width modulator U3 limits the voltage at the output of the electronic ballast when the sensed output voltage signal exceeds the output voltage threshold limit. The regulating pulse width modulator U3 can limit the output voltage by limiting the pulse width to the high voltage driver and the resonant half bridge. The filament current sensing circuit 224 can sense the output voltage indirectly, such as by sensing tank current, or can sense the output voltage directly.